

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:  
Agrawal et al.

Atty. Docket No.: JP920030161US1

Serial No.: 10/734,793

Group Art Unit: 3622

Filed: December 12, 2003

Examiner: Colleen A. Hoar

For: **TARGETING CUSTOMERS ACROSS MULTIPLE CHANNELS**

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**SUPPLEMENTAL AMENDMENT AND REQUEST FOR CONTINUED  
EXAMINATION (RCE) UNDER 37 C.F.R. §1.114**

Mail Stop Non-Fee Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Amendment is filed along with a Request For Continued Examination (RCE) in response to the Advisory Action mailed September 15, 2009, which indicated that the response filed on August 4, 2009 did not place the application in condition for allowance. The final rejection was mailed on June 10, 2009 and set a three-month statutory period for response; therefore, this submission is being filed along with a 1 month extension of time fee.

## **IN THE CLAIMS:**

The present claims are as follows:

1. (Currently Amended) A computer-implemented method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions implemented by a computer system, said method comprising:
  - storing belief values and an integrated belief profile of a customer in a computer,
  - wherein said belief values are based on activities of said customer across said multiple channels, and
  - wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;
  - receiving, by said computer a request from said customer from one of said multiple channels;
  - identifying, by said computer said customer and said one of said multiple channels associated with said request;
  - updating, by said computer said integrated belief profile, based on said stored belief values of said customer, before executing said request;
  - executing, by said computer said request;
  - ~~simultaneously~~, with said executing of said request, generating ,by said computer a channel-specific promotion based on said updated integrated belief profile; and
  - sending, by said computer, both a reply to said request and said channel-specific promotion to said customer,
  - wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing.
2. (Canceled).

3. (Previously Presented) The method of claim 1, wherein said belief values are combined across said multiple channels by orthogonally multiplying said belief values to obtain a Dempster Orthogonal Sum (DOS),  
wherein a basic probability assignment (BPA) is obtained from said DOS for said profile attributes corresponding to an intersection of said profile attributes, and  
wherein normalizing said BPA with said belief values associated with a null intersection obtains said integrated belief profile.
4. (Previously Presented) The method of claim 1, wherein said channel-specific promotion is generated according to a set of predetermined rules.
5. (Previously Presented) The method of claim 1, wherein the generating said channel-specific promotion is also based on said belief values of said customer with respect to one channel corresponding to said channel-specific promotion.
6. (Previously Presented) The method of claim 1, wherein said reply and said channel-specific promotion are provided on said one of said multiple channels upon which said request was received.
7. (Previously Presented) The method of claim 1, wherein said receiving step further includes converting a format of the one of said multiple channels upon which said request was received to a common format, and wherein said sending back-converts said reply and said channel-specific promotion to a format of the request.
8. (Previously Presented) The method of claim 1, wherein said belief values of said customer are accumulated over multiple customer sessions such that said integrated belief profile is incrementally updated.

9. (Currently Amended) A computer system for implementing a computer-implemented method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions, said computer system comprising:

a computer program storage device for storing belief values and an integrated belief profile of a customer,

wherein said belief values are based on activities of said customer across said multiple channels, and

wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;

an input/output interface for receiving a request from said customer from one of said multiple channels;

a processor configured to:

identify said customer and said one of said multiple channels associated with said request;

update said integrated belief profile, based on said stored belief values of said customer, before executing said request;

execute said request;

generate a channel-specific promotion based on said updated integrated belief profile, while simultaneously executing said request; and

send both a reply to said request and said channel-specific promotion to said customer,

wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing.

10. (Canceled).

11. (Previously Presented) The computer system of claim 9, wherein said processor is configured to:

combine said belief values across said multiple channels by orthogonally multiplying said belief values to obtain a Dempster Orthogonal Sum (DOS),

obtain a basic probability assignment (BPA) from said DOS for said profile attributes corresponding to an intersection of said profile attribute, and

obtain said integrated belief profile by normalizing said BPA with said belief values associated with a null intersection.

12. (Previously Presented) The computer system of claim 11, wherein said processor is configured to generate said channel-specific promotion according to a set of predetermined rules stored in a memory.

13. (Previously Presented) The computer system of claim 9, wherein said processor is configured to generate said channel-specific promotion based on said belief values of said customer with respect to one channel corresponding to said channel-specific promotion.

14. (Previously Presented) The computer system of claim 9, wherein said processor is configured to provide said reply and said channel-specific promotion on said one of said multiple channels upon which said request was received.

15. (Previously Presented) The computer system of claim 9, wherein said processor is configured to convert a format of the one of said multiple channels upon which said request was received to a common format and to back-convert said reply and said channel-specific promotion to a format of the request.

16. (Previously Presented) The computer system of claim 9, wherein said belief values of said customer are accumulated over multiple customer sessions such that said integrated belief profile is incrementally updated.

17. (Currently Amended) A computer program storage device readable by machine, tangibly embodying a program of instructions executable by said machine to perform a computer-implemented method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions implemented by a computer system, said method comprising:

storing belief values and an integrated belief profile of a customer in a computer,

wherein said belief values are based on activities of said customer across said multiple channels, and

wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;

receiving, by said computer a request from said customer from one of said multiple channels;

identifying, by said computer said customer and said one of said multiple channels associated with said request;

updating, by said computer said integrated belief profile, based on said stored belief values of said customer, before executing said request;

executing, by said computer said request;

~~simultaneously~~, with said executing of said request, generating, by said computer a channel-specific promotion based on said updated integrated belief profile; and

sending, by said computer, both a reply to said request and said channel-specific promotion to said customer,

wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing.

18. (Previously Presented) The computer program storage device performing the method of claim 17, wherein said belief values are combined across said multiple channels by orthogonally multiplying said belief values to obtain a Dempster Orthogonal Sum (DOS),

wherein a basic probability assignment (BPA) is obtained from said DOS for said profile attributes corresponding to an intersection of said profile attributes, and

wherein normalizing said BPA with said belief values associated with a null intersection obtains said integrated belief profile.

## **REMARKS**

Claims 1, 3-9, and 11-18 are pending in the application. Claims 1, 3-9, and 11-18 continue to stand rejected under 35 U.S.C. § 112, § 102, and § 103.

### **I. Formal Matters and Conclusion**

Claims 1, 3-9, and 11-18 are pending in the application.

Applicants respectfully submit that the present claims fulfill the statutory requirements of 35 U.S.C. § 112, second paragraph.

In view of the foregoing, Applicants submit that claims 1, 3-9, and 11-18, all the claims presently pending in the application, are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest time possible.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

Dated: September 21, 2009

/Peter A. Balnave/

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